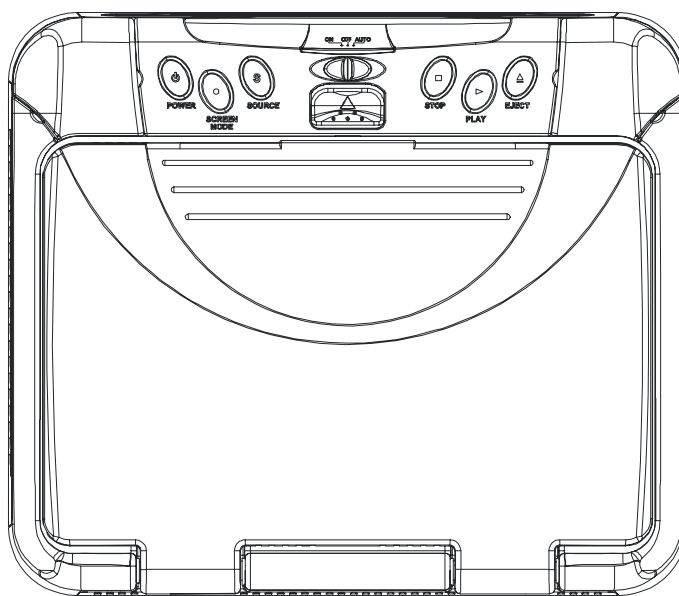




**MMD85
8.5" OVERHEAD LCD
VIDEO MONITOR
WITH DVD PLAYER**



Installation Guide

Important Notice

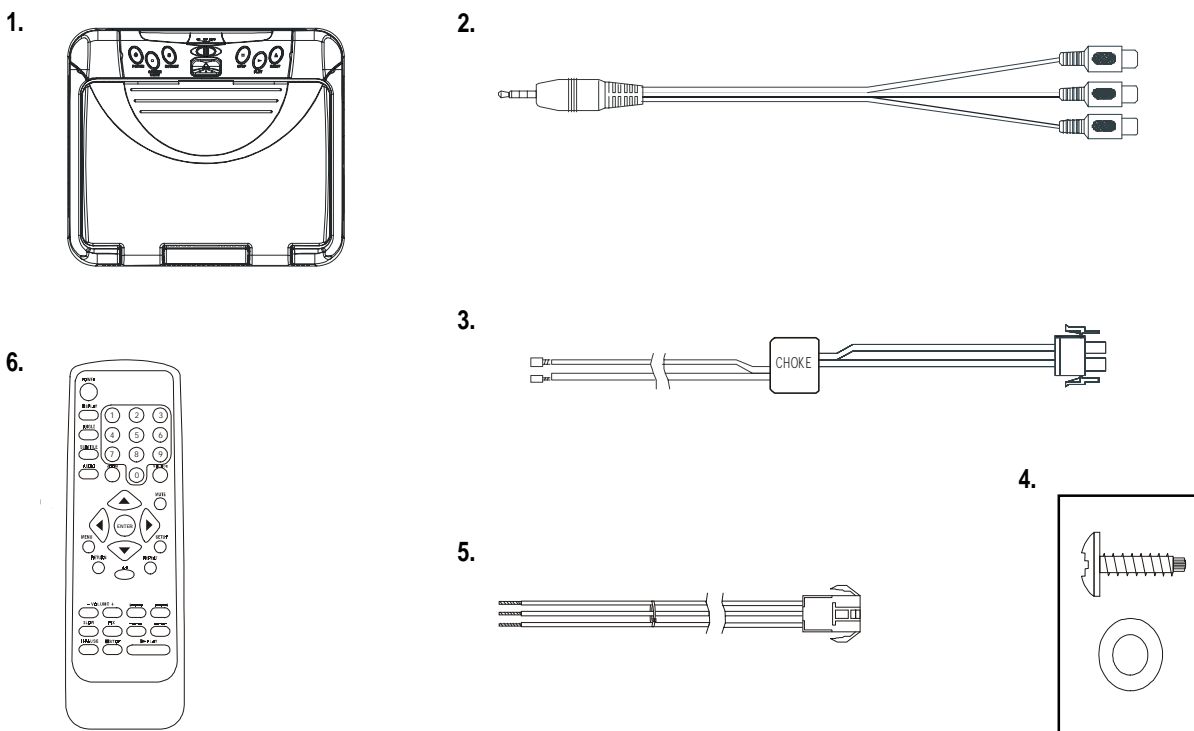
An LCD panel and/or video monitor may be installed in a motor vehicle and visible to the driver if the LCD panel or video monitor is used for vehicle information, system control, rear or side observation or navigation. If the LCD panel or video monitor is used for television reception, video or DVD play, the LCD panel or video monitor must be installed so that these features will only function when the vehicle is in "park" or when the vehicle's parking brake is applied.

An LCD panel or video monitor used for television reception, video or DVD play that operates when the vehicle is in gear or when the parking brake is not applied must be installed to the rear of the driver's seat where it will not be visible, directly or indirectly, to the operator of the motor vehicle. It is unlawful in most jurisdictions for a person to drive a motor vehicle which is equipped with a screen that is located in the motor vehicle at any point forward of the back of the driver's seat, or that is visible, directly or indirectly, to the driver while operating the vehicle. In the interest of safety, the MM850 should never be installed where it will be visible, directly or indirectly, by the operator of the motor vehicle.

**Licensed under one or more of the following patents,
Patent NOS. 5,775,762 and 5,927,784**

MATERIALS INCLUDED IN THIS PACKAGE:

- 1) MMD85 Video Monitor with DVD player (P/N136D3586) (1 pc)
- 2) A/V Adapter Cable (112B3227) (1 pc)
- 3) 2 Pin Power Wire Harness with choke (P/N112B3370) (1 pc)
- 4) Hardware Package:-
 - ◆ #8 x 3/4" Self Drilling Screws (4 pcs)
 - ◆ #8 Washers (4 pcs)
- 5) Dome light Harness (112B3110) (1 pc)
- 6) Remote Control (136B3591) (1pc)



TOOLS REQUIRED:

#2 Phillips Screwdriver
 #1 Phillips Screwdriver
 Utility or Razor Knife or Shears
 Wire Strippers
 Upholstery hook tool (for removal of panels as necessary)
 Electrical Tape
 Masking Tape
 Multimeter (to verify 12 volt DC and continuity: Do not use a test light or logic probe)
 Marker pen – to mark headliner
 Scribe (to mark trim ring if used)
 Misc. electrical connectors (to connect to vehicle power source). Requirements will vary from vehicle to vehicle.

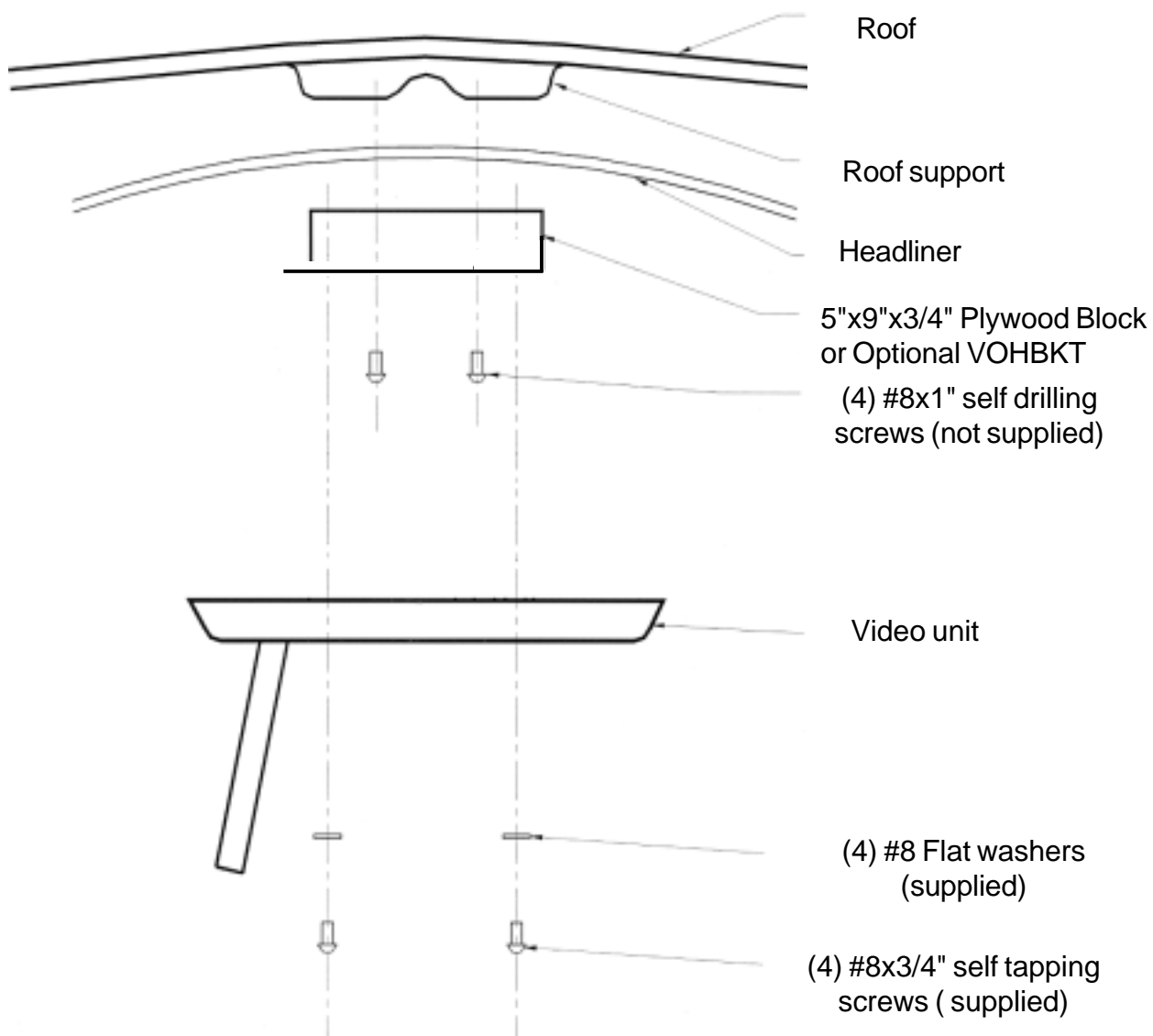
VEHICLE PREPARATION:

- 1) Locate an accessory power source (+12v when key is in the ACC. and run positions, and 0v when key is off). Also find a location that will provide a good grounding point. Generally, this wire can be found at the ignition switch or fuse-box.
- 2) The mounting method and location will vary from vehicle to vehicle, so this manual will only focus on the installation of the video monitor and related accessories.
- 3) Generally, the best location for the video monitor is where the vehicle's factory dome light is installed. The monitor should be located in such a manner that it can be comfortably viewed by rear seat passengers. **NEVER INSTALL THE MONITOR IN A PLACE WITHIN THE DRIVER'S VIEW. THIS IS NOT ONLY DANGEROUS, BUT IT IS ALSO ILLEGAL.**
- 4) Once the mounting location of the monitor has been determined, there may be additional preparation work necessary, depending on the vehicle structure and installation method. Some of the steps that may be required are:
 - A) Removal of the vehicle's dome light
 - B) The headliner may need to be trimmed

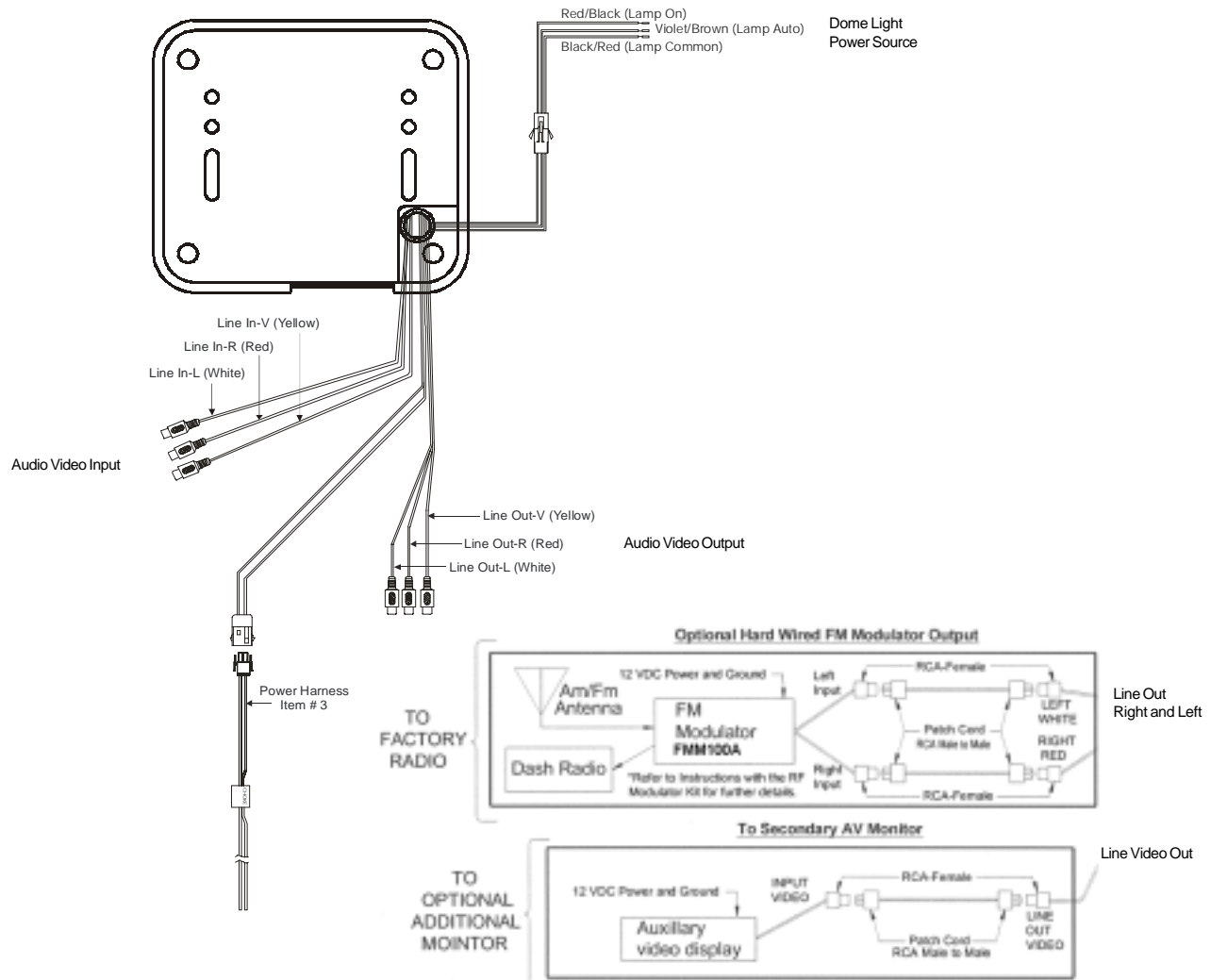
VIDEO MONITOR INSTALLATION:

In this installation, the video monitor is mounted directly to the overhead cross-member in the roof using the mounting screw bosses. These screw bosses should contact the cross-member directly (i.e.: no gap between the screw boss and the roof structure). Also, be sure that the screws do not pierce the outer roof skin when fully fastened to the cross-member. It is important that the screws used in this installation are not overtightened, and that the video monitor is mounted in such a way that the assembly does not distort (or bend) when the mounting screws are tightened. An alternate method is to use a piece of plywood. First secure the plywood block to the cross-member, then screw the monitor into the plywood. See the drawing on page 5.

MOUNTING THE VIDEO UNIT



MMD85



- 1) Make the connections to the vehicle for the 2 pin wiring harness.
 - 2) Connect the 2 pin harness to the mating connector on the Video Monitor.
 - 3) Connect power harness to vehicle's electrical system by tapping into an accessory hot line and a good ground.
 - 4) Verify all functions of the System before final mounting of the finished assembly.
- Note: A VCP or other A/V Component can be connected to the video monitor system using the LINE IN RCA jacks.

A/V Source Definitions :

- 1 = Built-in DVD
- 2 = AV1 input (VCD, Game or future DVD, etc)
- 3 = AUX input (VCD, Game or future DVD, etc)

CONNECTING THE DOME LIGHTS

The dome lights in the video monitor require three connections to the vehicle's wiring. There are two common types of dome light circuits used, positive or negative switched. Positive systems supply voltage to the interior lights to turn them on, negative switched systems apply ground to illuminate the bulbs. To determine which system you have you must locate the wires at the dome light. On a positive switched system, with all the doors closed and the lights out, both wires at the dome light will rest at ground. When the light is activated, one of these wires will switch to +12 vdc. This is the vehicle's switching wire. On a negative switched system, with all the doors closed and the lights out, both wires at the dome light will rest at +12vdc. When the light is activated, one of these wires will switch to ground. This is the switching wire.

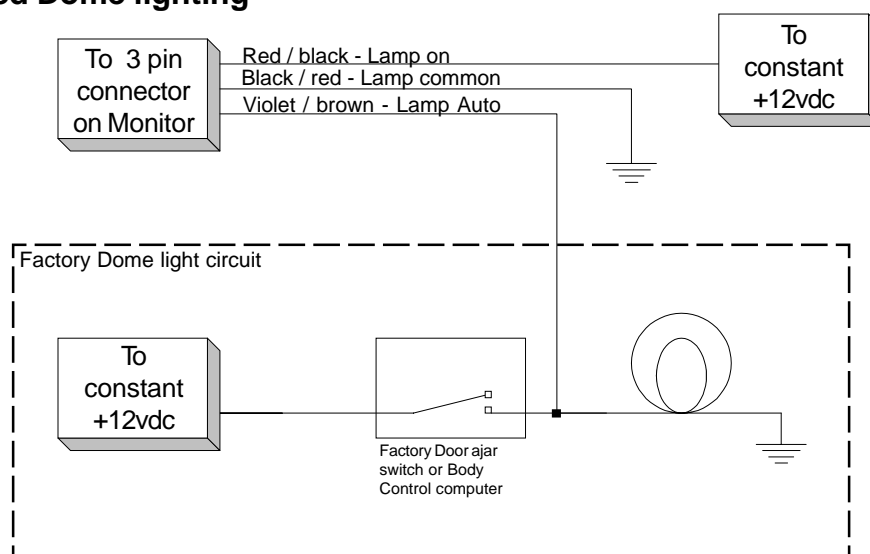
For positive systems, connect the violet / brown (Lamp auto) wire to the vehicle's switched wire. Then connect the red / black (lamp on) wire to a fused constant 12 volt source and the black / red (lamp common) wire to a good ground.

For negative systems, connect the violet / brown (Lamp auto) wire to the vehicle's switched wire. Then connect the red / black (lamp on) wire to a good ground and the black / red (lamp common) wire to fused constant 12 volt source. Negative systems are commonly found on General Motors and import vehicles.

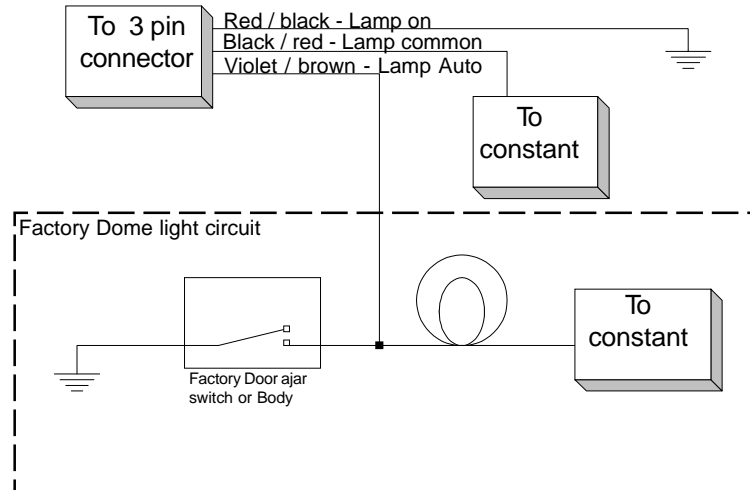
Note:

Some vehicles which incorporate transistorized control of the dome light circuit, such as the 1999 Dodge Caravan, may require that the violet / brown (Lamp auto) wire be connected to the door pin switch wire, as the additional current draw of the Monitor's lights may not be supported by the output of the vehicles body control computer.

Positive Switched Dome lighting



Negative Switched Dome lighting



Troubleshooting:

SYMPTOM:

No power at Video Monitor

REMEDY:

-Verify +12 VDC on Red wire at 2 pin Power Harness behind video monitor. Verify ground connection with continuity test from known good ground to black wire at 2 pin Power Harness

Power but no video or sound

-Verify that the correct source is selected (i.e.: 1 or 2). Verify that the source is on and playing a known good media (such as a videotape). Verify connections at both ends of the source component harness.

Picture, but no sound

-Verify that the headphones are turned on; check headphone batteries
-Verify that power is available to the FM Modulator; make sure modulator is tuned to the correct FM station

